



# Winter Weather Incident Annex

Annex to:  
Georgia Emergency Operations Plan



**- FINAL DRAFT – JANUARY 2015**

## **Executive Summary:**

The State of Georgia Snow and Ice Incident Annex to the Georgia Emergency Operations Plan (GEOP) provides guidance on how the State will coordinate support to jurisdictions impacted by severe winter weather incidents. It provides a framework for the State of Georgia to prepare for, respond to, and recover from a significant snow and/or ice weather event. This planning document is consistent with applicable local state and federal standards and is an update to the January 2013 version of the Snow & Ice Plan.

This plan update incorporates lessons learned from the January/February 2014 Severe Winter Weather Events and introduces the concept of State Operating Conditions (OPCONS) for Snow & Ice Events. The OPCONS establish a pre-event protective action timeline intended to provide guidance on the major incident objectives and actions that will be taken by the state for an impending and on-going severe winter weather event. A summary chart of the OPCONS is included below.

Please contact the GEMA Programs, Preparedness, and Recovery Directorate - Planning Unit at 404-635-7200 if you have questions.

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## Record of Changes

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## Record of Distribution

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Plan #	Office/Department	Representative	Signature
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## 1.0 Introduction

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### 1.1 Purpose & Objectives

The purpose of this incident annex is to provide a framework for the State of Georgia to prepare for, respond to, and recover from significant snow or ice weather events. This plan provides an overview of protective actions to be taken by state level organizations. It presents operational strategies for preparedness (pre-season and during an imminent threat), coordination of efforts during response, state-level support, resource allocation, logistical support, and recovery operations. Furthermore, this plan is intended to assist with:

- The provision of fast, effective and cooperative organization in response to a major snow and ice event.
- Reduction of suffering by the citizens of Georgia resulting from a severe snow and ice storm.
- Minimizing adverse economic impacts that could potentially be caused by damage to infrastructure.

### 1.2 Scope & Applicability

The Winter Weather Incident Annex applies to Georgia State Agencies and partners assigned ESF responsibilities by the Governors Executive Order 01-14-13-01 and the Georgia Emergency Operations Plan.

A significant winter weather event typically affects multiple counties in the State of Georgia and can even span multiple states. Due to this potential wide-spread impact, this plan may be activated when:

- a) Snow and ice accumulation are anticipated to impact multiple counties such that emergency response cannot be effectively performed within each county, or cannot be successfully met by county mutual aid resources, requiring assistance from the State; OR
- b) One or more of the following products are issued by the National Weather Service (NWS) for any area in Georgia with a primary emphasis on the criteria used by the Peachtree City National Weather Service Forecast Office since the majority of the State is covered by the Peachtree City office. (Attachment 1):

**Winter Storm Watch:** Issued when there is at least a 50% chance for winter storm conditions occurring in the next 12 to 48 hours. Winter storm conditions include an accumulation of at least a half inch of sleet, and/or a significant accumulation (1/4 inch or more) of ice due to freezing rain, and/or heavy snow accumulation. Snow accumulations must be at least 2" within a 12-hour period. Winter Storm watches can be upgraded to Ice Storm Warnings, Winter Storm Warnings and/or Winter Weather Advisories based on the expected winter weather phenomenon occurring within the next 36 hours. A Winter Storm Watch can also be issued at forecaster and emergency management discretion when significant impacts are expected but the snow, sleet, or freezing rain criteria are not necessarily met.

**Winter Weather Advisory:** Issued up to 36 hours before an event when there is at least an 80% chance of a winter precipitation event (snow, freezing rain/drizzle, sleet or blowing snow) which causes inconveniences but does not meet warning criteria. Winter Weather Advisories will be analyzed to determine whether the intensity, location, and timing of the forecasted impacts warrant the activation of this plan.

**Winter Storm Warning:** Issued when there is at least an 80% chance for winter storm conditions occurring within the next 36 hours. Winter storm conditions include an accumulation of at least a half inch of sleet, and/or a significant accumulation (1/4 inch or more) of ice due to freezing rain, and/or heavy snow accumulation. Snow accumulations must be at least 2 inches within a 12-hour period. A Winter Storm Warning can also be issued at forecaster and emergency management discretion when significant impacts are expected but the snow, sleet, or freezing rain criteria are not necessarily met.

**Ice Storm Warning:** Issued when there is at least an 80% chance that freezing rain will result in the accumulation of at least 1/4 inch of ice within the next 24 hours.

**Blizzard Watch:** Issued when there is at least a 50% chance for blizzard conditions within the next 36 to 48 hours. Blizzard conditions consist of sustained wind speeds (or gusts) of at least 35 mph, and considerable falling or blowing snow causing a reduction of visibilities to less than 1/4 mile for at least 3 hours.

**Blizzard Warning:** Issued when there is at least an 80% chance that wind and snow will combine to produce blizzard conditions within the next 36 hours. Blizzard conditions consist of sustained wind speeds (or gusts) of at least 35 mph, and considerable falling or blowing snow causing a reduction of visibilities to less than 1/4 mile for at least 3 hours.

Additional NWS Products which will be considered in the decision to activate this plan include:

**Wind Chill Advisory:** Issued up to 36 hours before an event for an 80% or greater chance of wind chill values less than or equal to 5°F but does not reach warning criteria.

**Wind Chill Warning:** Issued up to 36 hours before an event for an 80% or greater chance of wind chill values less than or equal to -10°F

### ***1.3 Planning Assumptions***

- A. Winter storms in the Southeast are inherently difficult to forecast; and forecasts can change rapidly, fluctuating in coverage and intensity. These storms may become severe with little warning, catching the public off guard, or fizzle out so that early school and business closings can result in an unnecessary loss of productivity.
- B. A winter storm typically will affect multiple counties and possibly span numerous regions throughout the state. The types of impacts vary widely depending on the type, intensity, and timing of the winter storm. The severity of impacts may vary locally due to excessive snow or ice accumulation in certain areas; the presence of vulnerable populations; the location of critical facilities impacted by the snow and ice; or the isolation of certain communities.
- C. The State of Georgia is covered by six different national weather offices (see

map in Attachment 2) with slight variations in how the various winter weather products are defined. These NWS product variations may influence how the State responds to a winter weather incident.

- D. This plan will support state agency and local jurisdiction plans to address snow and ice hazards, including the Department of Transportation's plan for snow and ice removal from state roadways.
- E. State agencies and local jurisdictions will implement their plans in a timely manner.
- F. Critical facilities, such as hospitals and nursing homes will develop and maintain functional contingency plans to protect their residents and to ensure critical workforce continuity of operations.
- G. School superintendents will maintain situational awareness concerning changing weather forecasts and make appropriate decisions to close schools.
- H. Key leaders in Georgia state agencies will participate in the Government Emergency Telecommunications Service (GETS) and Wireless Priority Service (WPS) administered by the Department of Homeland Security Office of Communications. [GETS provide priority access to landline phone systems, and WPS provides priority access to most cellular phone systems during periods of congestion due to increased call volume or damage to communication infrastructure.] Each agency will also have alternative communication devices readily available to support agency requirements.
- I. Coordinators for Emergency Support Function 12: Energy will facilitate on-going planning efforts with public and private sector utility partners to provide for enhanced coordination and collaboration during a severe winter weather incident.
- J. Shelter pre-planning is difficult due to the great uncertainty in predicting the location, amount, timing, and impact of snow and ice on citizens.
- K. Local governments will often open Warming Centers, and churches will often open Independent Shelters in their facilities as they see the need arise. When large numbers of motorists are stranded in an unexpected storm, private businesses, fire stations, and police stations may open as safe havens or refuges of last resort. When independent shelters, warming centers, and safe havens are opened, the entity that opens the facility will be responsible for staffing and managing those facilities. It is not expected that spontaneous safe havens will have food, water, blankets or cots; and people will be moved to a better equipped shelter as soon as possible.
- L. Due to the widespread impacts and difficulties in transporting response personnel, equipment and supplies, shelter resources will need to be prioritized according to life safety needs as assets are available.
- M. When a severe winter weather event impacts metro Atlanta, the dense population and heavy commuter traffic in the Atlanta metro area will require special consideration in planning de-icing operations and response and recovery missions.
- N. Commuter traffic congestion will fluctuate according to the size of the workforce that remains home prior to an imminent snow or ice storm. Worker decisions to remain home often depend on forecast confidence, school closures, state office and business closures, or their employer's work-from-home and absentee policies.
- O. Most citizens will be made aware of the threat of a winter storm through a variety of means, including (but not limited to): GEMA/HS Public Information messaging; the National Weather Service, The Weather Channel, and other outlets for weather news; local TV news broadcasts; local newspapers; social media; and Emergency Alert System broadcasts and Wireless Emergency Alerts.



## 2.0 Situation Overview

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Although severe winter weather does not create a significant problem for Georgia every year, the state has experienced impacts from snow and ice events that overwhelmed local emergency response capabilities, caused suffering for Georgia citizens, created hazardous conditions and caused significant damage to public and private infrastructure. Two specific events that have occurred in recent years were the January 2011 Snow & Ice Incident and the January 2014 Snow and Ice Incident.

**January 2014-** The State Operations Center (SOC) upgraded to full-scale activation on January 27, 2014 in preparation for and in response to impending severe winter weather. On that same day, parts of the state began experiencing the impacts of a snow and ice storm that quickly produced large amounts of snow and seasonably low temperatures in metro Atlanta, North Georgia and South Georgia. Total snow accumulations for this storm in the Atlanta area ranged from 1" – 3" inches. The complexity of the event was such that normal preparations for storm-related preparedness actions were made more difficult by the weather's unique aspects. This situation caused Atlanta and the metro area to experience a significant shutdown. Schools, government offices and private businesses closed when it became apparent that the storm's impact was more severe than originally anticipated, resulting in a massive influx of traffic on the roadways within a very short period of time.

The traffic volume, in conjunction with deteriorating weather conditions and considerable ice forming on roadways, caused highways and surface roads to become impassable in many areas of metro Atlanta. As a result, thousands of motorists were stranded for up to 24 hours in certain areas. Many students and teachers were unable to leave schools and were forced to shelter-in-place at their locations.

**January 2011-** In early January 2011, a major winter storm hit north and central Georgia impacting an entire business week. On Sunday, January 9th, mid-level rain and snow fell into cold surface air, evaporating and causing surface temperatures to cool further. In north Georgia, snowfall accumulation was 8 to 10 inches; in central Georgia, snowfall ranged from 6 to 8.5 inches. The snow stopped falling by mid-day Monday; however temperatures hovered around the freezing mark, and persistent freezing drizzle and rain caused significant ice accumulation across north and central Georgia. Despite de-icing efforts by local and State Departments of Transportation, roads that had begun to melt subsequently re-froze overnight. Numerous vehicles were stranded on interstates and arterials. In particular, large trucks made recovery difficult by hindering de-icing efforts. Most public and private schools, colleges, and universities remained closed for much of the week. Because most roads were impassable, many people were confined to their homes, unable to travel to their places of employment, and the state experienced significant lost in economic productivity.

The severe winter weather events of recent years have led state partners to a heightened awareness of the many unique considerations related to statewide snow and ice response efforts.

## **2.1 Hazard Analysis**

The Georgia State Enhanced Hazard Mitigation Plan provides information on the history and analysis of winter weather hazards. Georgia experiences hazards from ice, extreme cold temperatures, and occasional heavy snowfall.

**Ice** - The greatest threat during severe winter weather is icing from freezing rain or from sleet and snow that melts and refreezes. Freezing rain consists of super cooled (below 32 degrees) falling liquid precipitation that freezes on contact with any surface that is below freezing. This results in an ice glazing on exposed surfaces including buildings, roads, and power lines. Even slight accumulations of ice create hazardous driving conditions and can cause significant problems if the precipitation occurs during rush hour. Increasing ice accumulation may result in downed power lines and trees, which result in power outages and blocked roads. Wind speed plays a major role in increasing the severity of an ice storm. The Peachtree City National Weather Service is currently testing the experimental Sperry-Piltz Ice Accumulation Index, which combines ice and wind forecasts to anticipate the potential extent and duration of power outages and damage from a forecast storm. (Attachment 3)

**Extreme cold temperatures** - Extreme cold temperatures cause human suffering and agricultural losses, particularly when combined with loss of heat from power or fuel outages. Wind Chill takes into account the increased rate of heat loss from exposed skin caused by the combination of wind with cold temperatures. The Wind Chill Chart in Attachment 3 shows the relationship of increasing wind and decreasing temperatures and the time it takes frostbite to occur on exposed skin. (Attachment 4)

**Heavy Snowfall** – Georgia occasionally experiences major snowstorms with snowfall accumulations up to 19". The build-up of significant amounts of snow and ice adds considerable weight to structures and utility infrastructure that may not be designed to withstand the weight. Winter snowstorms are categorized by the Regional Snowfall Index (RSI) produced by the NOAA National Climatic Data Center. The RSI Category is based on the spatial extent of the storm, the amount of snowfall, and the juxtaposition of these elements with population. Including population information ties the index to societal impacts. The RSI is calculated separately for different areas of the United States to account for regional climatic differences. (Attachment 5)

In Georgia, most severe winter weather occurs within the months of January to March, with the highest probability of occurrence in February, although storms have occurred as early as October.

## **2.1 Impact Analysis**

While large-scale loss of life or property does not typically occur during winter storms, conditions can quickly become dangerous. A detailed analysis of the potential severe winter weather impacts to the State of Georgia can be found in the State Enhanced Hazard Mitigation Plan (2014). The most significant potential impacts of severe snow and ice events include:

- Potential injuries or loss of life due to extreme cold and wind chill;
- Impacts on the transportation networks;
- Damages to utility infrastructure; and
- Commercial and personal property damages or loss.

#### **Potential Injuries/Loss of Life due to Extreme Cold and Wind Chill:**

Extreme cold is a dangerous situation that can bring on health emergencies for people with inadequate shelter: including homeless people, stranded motorists, or people who live in a home that is poorly insulated or without heat due to financial limitations or power outages. Vulnerable populations (adults 65 years of age and older, people with disabilities, individuals who are medically fragile, and children under the age of two) are particularly at risk in these situations. Private citizens can be harmed by carbon monoxide fumes or house fires when using improper methods of heating in an effort to keep their homes warm. Wind chill can be a danger for outdoor workers and children waiting at bus stops. Schools and business may close to protect students and workers when wind chill advisories and warnings are in effect. Extreme cold combined with lack of power or heating fuel can also result in agricultural, poultry and livestock losses.

#### **Impacts on Transportation Networks:**

Icy roads create hazardous driving conditions that can cause problems ranging from inconvenience to fatal accidents. The timing of a winter weather event significantly affects the storm's impact. For example, even a very thin layer of ice falling at rush hour can create serious traffic issues. As accumulations increase, minor accidents and disabled and abandoned vehicles may block other drivers and vehicles better equipped to drive on icy roads, including first responders. This is a particular issue on interchange ramps and bridges. Commercial trucks and large tractor trailer trucks can block multiple lanes if they slide on ice and are particularly difficult to move out of the way. Georgia House Bill 753, passed in 2011 and updated after the severe winter weather of 2014, requires chains or snow tires on trucks passing through Georgia during ice storms for this reason. As conditions deteriorate, commuting motorists can be stranded for hours and face great difficulty in reaching shelter. Unprepared motorists remaining with their cars may run out of gas and not have heat, water, food, or blankets for warmth. Schools caught off guard by snow or ice arriving during the day may risk school bus loads of children stranded on the roads or children sheltered at school overnight. During prolonged events, shortages of critical goods may develop due to difficulties in commercial freight transportation.

#### **Damages to Utility Infrastructure:**

Ice accumulation on tree branches can cause branches to break and whole trees to fall, blocking roads and pulling down power lines and damaging buildings. Power lines and phone lines can also be pulled down by the weight of accumulated ice combined with wind. Ice accumulations greater than 3/4" with light winds (approximately less than 15 mph) create widespread power outages. Factors such as multi-day cold periods or high winds after an event will prolong outages by delaying snow melt or creating hazardous conditions for power restoration.

**Power Outage Impacts:** Power outages have serious repercussions. Critical concerns include: food spoilage due to lack of refrigeration, water and sewer treatment plants going off line, and nursing homes and hospitals without back-up power sources. Long Term Care Facilities not properly equipped with adequate generators are particularly vulnerable to power outages and loss of heat due to the fragile health of the residents and

the difficulty in evacuating residents to locations with heat and power. Facilities with onsite generators may not have generators sized properly to run heating systems or generators may experience mechanical failures. Facilities without generators may not be properly wired to receive emergency generators. During a February 2014 Severe Winter Weather incident, several nursing homes experienced power failures and required assistance obtaining back-up generators. An Augusta hospital also received state assistance after their generator system failed when their full power demand was applied during the power outage, illustrating the need to test generators under actual emergency load requirements.

**Communication Network Impacts:** Cell phone communications may be affected by high usage during the onset of a storm or by ice accumulation on towers or loss of power at the towers. Although most cell phone towers have back-up generators, hazardous travel conditions can prevent the generators from being re-fueled during a long lasting event.

### **Commercial and Personal Property Damages or Losses**

In addition to damage to buildings caused by falling trees and branches, there is the potential for extremely heavy snow and ice loads to collapse big box retail stores, malls, and warehouses. In addition to financial losses, there is the possibility of trapped and injured people inside. Agricultural buildings may not be built to adequate structural standards and can also collapse, killing livestock and poultry. Falling trees and ice accumulations can bring down pasture fencing allowing livestock onto the roads. Furthermore, there is a possibility of pipes (including sprinkler systems) freezing and bursting and causing significant property damage.

Private homes and automobiles may be damaged by fallen trees, branches, or power poles. Homes may be also damaged by fire when home owners attempt to use candle light or heat their homes with wood fires.

## **3.0 Concept of Operations (CONOPS)**

The concept of operations summarizes the operational response activities of the state disaster team and includes the typical operating conditions for snow and ice events, an overview of the command and control branch, an overview of the local, state and federal coordinating entities and the ESF Roles and Responsibilities. This Severe Winter Weather Annex Concept of Operations establishes a pre-event protective action timeline intended to provide guidance on the major incident objectives and actions that will be taken by the state to prepare for, respond to and recover from a severe snow and ice event.

### **3.1 State Operating Conditions**

Due to the difficulty of snow and ice forecasting in the Southeast, forecasts may change rapidly and operational response plans related to snow and ice events must be flexible and adaptable to a rapidly evolving winter weather event. To enhance operational response efforts, GEMA Operations has divided the snow and ice response planning into State Operating Conditions. The OPCONS are based on National Weather Service Winter Weather Products, with guidance provided by the GEMA Meteorologist in consultation with NWS Meteorologists and the Weather Advisory Group (WAG). The NWS Products are associated with: a) different intensities of impacts, b) the probability that the impacts will

occur, and c) a typical timing of the arrival of the snow and ice event. The State Operating Condition (OPCON) levels are consistent with other state weather response incident annexes and provide a flexible, but time-delineated, action- oriented preparedness, response and short-term recovery framework. The OPCON response actions and activities are not intended to be exhaustive; the actions listed represent an overview of the most important and mission-critical actions to be undertaken to support the response effort. The OPCON Levels are summarized below. Detailed Guidance for each OPCON Level is provided in Attachment 6.

### **OPCON 5 – Normal Operations, Weather Monitoring, and Preparedness Activities**

Trigger: OPCON 5 represents the normal day-to-day operating level of the GEMA/HS SOC during any time of the year when snow or ice is not forecasted to impact Georgia.

Actions: Activities during OPCON 5 include reviewing and updating operations plans, developing Standard Operating Procedures (SOPs), conducting training and exercises, facilitating public outreach and education, reviewing impacts from previous snow and ice storms and incorporating lessons learned and best practices into operational procedures.

### **OPCON 4 – Enhanced Monitoring**

Trigger: OPCON 4 is initiated for the purpose of enhanced monitoring of early snow or ice forecasts. The initial forecast is often in the form of a NWS Winter Storm Outlook (30% probability) usually released 3 – 4 days before the event (but possibly released up to 7 days ahead with a high degree of uncertainty).

Actions: During OPCON 4, the GEMA/HS Meteorologist begins increased communications with the appropriate NWS Forecast Offices and the Weather Advisory Group. The GEMA/HS Operations Section will begin to send out Awareness Statements to ESF leads, State Agency Primary and Alternate Emergency Coordinators, and local EMA Directors.

### **OPCON 3 – Alerting and Strategic Planning**

Trigger: When it is determined that the probability and severity of impacts warrants early preparations, OPCON 3 is initiated. This is generally 2 - 3 days prior to impacts and may be triggered by a NWS Winter Storm Watch (50% probability), a higher-impact NWS Winter Weather Advisory (80% probability of lesser impacts), or a Winter Storm Outlook that has a high confidence of intensifying. Conversations with the National Weather Service and the Weather Advisory Group will assist in making this determination.

Actions: Operations during OPCON 4 typically include the activation of the Emergency Operations Command group by the GEMA/HS Director; the establishment of a Joint Information Center for the purpose of public messaging; and an Elevated Activation of the SOC for the purpose of early response coordination and tactical planning through conference calls and meetings with appropriate state and local partners.

### **OPCON 2 – Readiness and Staging**

Trigger: When it is determined that the probability and severity of impacts warrants

extensive preparations, OPCON 2 is initiated. This is generally 36 - 24 hours prior to impacts and is usually triggered by a NWS Winter Storm Warning (80% probability), although a Winter Weather Advisory (80% probability of lesser impacts) may trigger OPCON 2 if the impacts include icing to occur during the workday or rush hour.

**Actions:** A Governors State of Emergency may be declared at this time to make state resources, including the National Guard, available for protective actions; and a Federal Emergency Declaration may be requested to make federal resources available if needed. ESFs that are crucial for the early stages of the response will report to the SOC. GDOT personnel and DPS escort teams will be activated and staged and brine treatment may begin. Truckers will receive information on requirements for tire chains and optional parking locations. If necessary, Wireless Emergency Alerts will be sent out to affected counties and School Superintendents will be notified by email of the severity of the situation. The JIC will urge the public to prepare readiness kits and monitor the forecast.

### **OPCON 1 – Final Staging**

**Trigger:** At OPCON 1, probable impacts are within 12 hours, as determined through consultation with NWS Meteorologists and the Weather Advisory Group.

**Actions:** During this timeframe the SOC will be at Full Activation, and additional ESF representatives will report to the SOC prior to roads becoming hazardous. NWS Meteorologists and the Weather Advisory Group will advise GEMA/HS leadership concerning the probability of snow and ice impacting the Georgia metropolitan areas during the following workday. If there is a reasonable chance of workday impacts, GEMA/HS will follow a decision making Protocol for State Government Closure. GDOT will continue road treatment, and ESF 6 will coordinate with local EMAs to identify potential shelters in order to prepare appropriate staffing and anticipate logistical issues.

### **RESPONSE**

**Trigger:** As the snow and ice storm arrives, the Response Phase begins.

**Actions:** Multi-Agency Traffic Strike Teams may be activated to clear traffic lanes of disabled vehicles and to assist stranded motorists with water, food, blankets, and transportation to medical facilities if needed. Other response activities include (but are not limited to) continued road treatments, enforcement of trucking laws, and the opening of shelters as needed. Damage assessments begin.

### **RECOVERY**

**Trigger:** Recovery begins when conditions are safe, wind speeds decrease and the risk of tree limbs falling on work crews is reduced. At this time clean-up and power restoration begin.

**Actions:** Multi-agency Debris Clearance Task Force teams may be activated to open roadways. Power companies will begin to restore power as needed. Additional recovery efforts may include towing abandoned vehicles, assisting vehicles owners in recovering their vehicles, assisting water and sewage treatment plants that have been affected, coordinating volunteer activities, collecting damage reports, and developing a potential



request for a Presidential Disaster Declaration if warranted.

### **3.1 Coordination**

#### **State Coordination**

GEMA/HS operates the State Operation Center (SOC) according to tenets established by the National Response Framework and the National Incident Command System through the State Operations Center (SOC) to achieve objectives provided by the Governor, the GEMA/HS Director, and the Emergency Operations Command (EOC). The Director of GEMA/HS activates the Emergency Operations Command as needed and initiates a regular 8 AM / 2 PM / 8 PM schedule of coordination calls.

The Director of GEMA/HS sets the SOC to activation levels as needed by the requirements of the response. ESF Representatives staff the SOC as requested by GEMA/HS Operations. While conference calls among ESF representatives may be adequate for early tactical planning prior to an event, face-to-face meetings are critical for successful operational planning; therefore all ESFs are expected to have trained and authorized representatives in the SOC.

The Georgia Department of Transportation (GDOT) has an internal mandate to keep the roads passable and has developed extensive operational plans to treat the roads for snow and ice. GDOT is responsible to provide situational awareness to the SOC about road treatment activities and road conditions through observations by maintenance personnel and Georgia 511 requests for motorist assistance. The Georgia Department of Public Safety (DPS) assists GDOT in collecting road condition information by sending spot reports to the GDOT Traffic Management Center and the SOC. The GDOT Traffic Management Center provides the SOC with access to live camera feeds of traffic conditions for many interstate and state road locations.

WebEOC is the incident management system implemented by GEMA/HS to enable state and local responders to communicate requests for assistance and situational awareness. WebEOC accounts are provided to all ESF partners and WebEOC training is routinely provided. The Georgia Public Health Department, the Georgia Hospital Association, and multiple local jurisdictions have their own WebEOC systems, which have been integrated with GEMA/HS's system to enhance situational awareness and exchange of information.

The Office of the Governor is briefed by the Director of GEMA/HS and kept abreast of developing situations.

*Weather Advisory Group* – the Weather Advisory Group is made up of NWS meteorologists and meteorologists from local television stations who have agreed to serve as advisors to GEMA/HS concerning the interpretation of weather forecasts. The Weather Advisory Group provides additional insight and expertise through conference calls or emails continuing throughout entire time that snow and ice threatens Georgia. GEMA/HS's staff meteorologist serves as the main point of contact for the group, but during the anticipation of an event, GEMA/HS leadership will participate in discussions.

*Department of Defense Entities* - the Georgia Department of Defense (GaDOD) consists of three distinct branches; the Georgia Army National Guard (GaARNG), Georgia Air

National Guard (GANG), and the Georgia State Defense Force (GSDF). Widespread deployment of Georgia Department of Defense personnel and resources requires a Governor's State of Emergency declaration. Once the declaration is executed, personnel are called to service in "State Active Duty" status. The GaDOD LNO coordinates National Guard operations in the State Operations Center. The National Guard requires up to 24 - 36 hours to mobilize, therefore advanced planning is crucial to make sure they are available for emergency missions when needed. Costs for the National Guard activities are paid by the State of Georgia, so they are not always used in smaller events. Since tactical plans are very different with and without the National Guard, it is important to have accurate expectations concerning the likelihood of National Guard Activation so that realistic pre-event planning can take place.

### **County Coordination**

GEMA/HS uses EMnet to alert local EMA Directors to emergency situations. EMnet Nodes have been fielded in most of the County and Regional 911 Centers throughout Georgia. In addition to serving as a method for sending secure messages between EMnet Nodes, the EMnet system is Georgia's access gateway into FEMA's Integrated Public Alerting and Warning System (IPAWS). Each Node can be configured to receive weather alerts from the National Weather Service. GEMA/HS also uses the DA Page SMS text notification system to alert primary and alternate emergency contacts. More information can be found in the Georgia Emergency Alert System Plan.

As approved by GEMA/HS and as contracted via a Memorandum of Agreement with FEMA, each approved local EMA can use their EMnet Node to send local Wireless Emergency Alerts to their jurisdiction through the IPAWS system. This process and authorized types of alerts are detailed in the Integrated Public Alerting and Warning System in Georgia Standard Operating Guidelines.

Each County EMA Director has access to GEMA/HS's WebEOC system for internal use in their own county as well as for communicating Requests for Assistance (RFAs) and situational awareness to the SOC. Counties can also call in RFAs and situational updates through the State Warning Point or the GEMA/HS Field Coordinators. (See Attachment 7 for a map of GEMA Field Coordinator Areas.)

County Conference Calls are held daily between the SOC and affected counties. The purpose of this call is to provide direct support to local EMAs and provide them with an opportunity to raise major issues that the state may be able to resolve. All SOC Command and General Staff and a representative from each ESF will be present at this call to provide direct feedback to impacted counties upon request.

### **Federal and National Entities**

*FEMA Region IV* facilitates the request process for pre-event Presidential Emergency Declaration, which makes certain federal resources available in the preparation and early response stages. GEMA/HS assists the Governor of Georgia in applying for this declaration.

Presidential Disaster Declaration may be requested through FEMA to provide assistance in recovering from a storm that causes significant damage. ESF #14 coordinates with local jurisdictions and FEMA Region IV to collect the necessary damage reports and assists



the Governor of Georgia in submitting the request.

*National Weather Service (NWS) Forecast Offices* play a vital role in supplying information about the location, timing, and intensity of severe winter weather. Georgia is served by six NWS Forecast Offices; a map of the counties covered by each office is included in Attachment 2. Many Forecast Offices hold weekly briefings and webinars for their area. Additional briefings and conference calls are announced as severe weather approaches the state. In addition, the National Weather Service sponsors NWS Chat, a web-based forum for emergency managers and media staff to discuss weather issues. GEMA/HS will monitor this site. State emergency management agencies may also request an incident meteorologist to be embedded in their emergency operations center to provide subject matter expertise and a direct connection with NWS resources. The GEMA/HS staff meteorologist will work closely with the local forecast offices to receive the most up-to-date forecast available.

### **Volunteer Organizations**

VOADS (Volunteer Organizations Active in Disasters), as well as non-profit and faith based volunteer organizations, can contact the GEMA/HS Volunteer Coordinator, who works with local EMA Directors to pinpoint community needs that the volunteers can help with. The GEMA/HS Volunteer Coordinator may also alert volunteer organizations of anticipated needs prior to the event to allow for preparation time

### **Private-Sector Entities**

Other private sector coordination generally occurs through the ESFs. For example, ESF #8 is the liaison with hospitals and nursing homes concerning problems caused by the snow and ice; and ESF #12 coordinates with power, natural gas, and gasoline companies concerning outage reporting and restoration estimates.

## **3.3 Roles and Responsibilities**

### **ESF #1 – Transportation** (Coordinator: Georgia Department of Transportation)

- Pre-Season – update state and district snow and ice procedures to reflect new conditions and lessons learned.
- Activate contracts with private parties for snow and ice removal operations.
- Enact all snow and ice pre-treatment and removal policies, including shift change and assignment procedures.
- Coordinate with ESF #13 for security escorts for brine and salt trucks.
- Coordinate with ESF #13 for the inclusion of GDOT HERO units in Traffic Strike Teams to clear traffic lanes and assist stranded motorist.
- Provide situational awareness to the SOC concerning road conditions.
- Disseminate road conditions to the public through ESF 15, Georgia Navigator 511, and other outlets.
- Provide situational awareness to the SOC on Public Transit operating conditions and schedules. Provide situational awareness to public transit agencies on road treatment schedules and plans for early State employee release.
- Staff the State Operations Center to coordinate response efforts among partner agencies.
- Provide personnel to Unified Command at Georgia State Patrol Troop C EOC.
- Recovery – Clear state roads and right-of-ways of debris

## **ESF #2 – Communications** (Coordinator: Georgia Emergency Management Agency)

- Prior to the onset of the Winter Storm - Acquire, maintain, program, and prepare radio and telephone system equipment as part of GEMA/HS' cache equipment for use during emergency operations.
- Provide communications equipment from the GEMA/HS cache to State Response Teams. As assets are available, cache communications equipment may be used to assist in previously unidentified communications needs for State- level response operations.
- Coordinate the integration of Amateur Radio Emergency Service (ARES) into response communications as needed.
- Coordinate with communications industry partners for the identification and restoration of damaged/inoperable communications infrastructure assets.

## **ESF #3 – Public Works and Engineering** (Coordinator: Georgia Department of Natural Resources)

- Pre-season – Train additional office staff to perform emergency field inspections.
- Prior to the onset of the Winter Storm - Pre-identify available generator resources and verify 24 hour contact numbers for water and wastewater system operators.
- Monitor and provide technical assistance to water and wastewater treatment plants experiencing power outages and damage.
- Coordinate with ESF 12 and ESF 7 to locate generators as needed.
- Track all active boil water advisories.
- Coordinate with GEMA/HS and the Georgia Forest Commission to obtain potable water tankers for water systems that request them.
- Coordinate with Georgia Water/Wastewater Agency Response Network (GaWARN) and Georgia Rural Water Association to locate additional mutual aid resources.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

## **ESF #4 – Firefighting** (Coordinator: Georgia Forestry Commission)

- Prior to the onset of the winter storm, re-locate vehicles as needed so that that they are easily accessible and strategically located for response as directed by the State Operations Center.
- Be prepared to assist Georgia Department of Transportation with additional brine treatment if needed.
- Participate in Traffic Strike Teams to clear traffic lanes and assist stranded motorists.
- Provide personnel to Unified Command at Georgia State Patrol Troop C EOC.
- Assist with transportation of shelter personnel and supplies and other critical goods.
- Be prepared to assist local fire departments with firefighting needs.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

## **ESF #5 – Emergency Management** (Coordinator: Georgia Emergency Management Agency)

Agency)

- Pre-season - Coordinate review and updates to the State of Georgia Snow and Ice Incident Annex to the GEOP.
- Pre-season - Identify resources and gaps in resources for a severe winter weather event.
- Provide briefings and updates to the Governor.
- If appropriate, recommend that the Governor declare a State of Emergency for the snow and ice event.
- If appropriate, recommend that the Governor request a Presidential Emergency Declaration and Direct Federal Assistance.
- If appropriate, recommend that the Governor request a Presidential Major Disaster Declaration for the snow and ice event.
- Oversee all essential command and control processes.
- Convene the Georgia Emergency Operations Command (EOC).
- Convene the Weather Advisory Group (WAG).
- Facilitate effective internal communication processes among state response leadership team through WebEOC and an established schedule of conference calls.
- Email current winter weather forecast information to school superintendents in the affected counties to assist them in determining whether to close schools.
- Utilize state-level resources for emergency management. If the emergency exceeds the capabilities of the State, GEMA/HS may request assistance through EMAC or recommend that the Governor seek a Presidential Disaster Declaration.
- Process Requests for Assistance (RFAs) from counties.
- Facilitate coordination calls among response partners and local jurisdictions.
- Maintain appropriate staffing levels.
- Coordinate with the GEMA/HS Finance Division and the Facility Coordinator to provide meals and billeting for SOC staff

**ESF #6 – Mass Care & Human Services** (Coordinator: Georgia Department of Human Services)

- Be prepared to support local shelter RFAs (Requests for Assistance) as needed.
- Be prepared to support local feeding RFAs as needed, including mobile and fixed feeding sites.
- Coordinate with ESF 7 (GFC) through SOC for supply and staff transportation needs.
- Coordinate with Department of Public Health to obtain transportation for vulnerable populations in shelters to life-sustaining services (for example, dialysis and other medical procedures)
- Coordinate the opening of shelters on state properties.
- Receive information about Independent Shelters and upload into National Shelter System (NSS).
- Be prepared to receive requests for material resources from Independent Shelters that are overwhelmed beyond the capabilities and resources of the sponsoring organization and provide support if resources are available. Assistance may come in the form of locating resources available to counties. State response needs may have to be prioritized when state resources are stretched thin by a

widespread event.

- Be prepared to coordinate with local jurisdictions to support local warming centers that are overwhelmed beyond the capabilities and resources of the county and the county's mutual aid resources. Assistance may come in the form of locating resources available to counties. State response needs may have to be prioritized when state resources are stretched thin by a widespread event.
- Staff the State Operations Center under ESF 6 to coordinate response efforts among partner agencies.

**ESF #7 – Logistics** (Coordinator: Georgia Emergency Management Agency; Additional Primary Agencies: Department of Administrative Services and Georgia Forestry Commission)

- Pre-event – DOAS (Department of Administrative Services) will maintain inventory of state owned four-wheel drive vehicles.
- Prior to the onset of the winter storm, DOAS will contact state agencies that possess four-wheel drive vehicles and advise the agencies to ensure that the vehicles are being properly maintained and to prepare to re-locate the vehicles to sites strategic to response (as directed by the State Operations Center, in coordination with the Georgia Department of Transportation).
- DOAS will provide the status and location of all state-owned four-wheel drive vehicles upon elevation of SOC activation level.
- DOAS will serve as the liaison to state vendors as necessary.
- Obtain life sustaining commodities for citizens stranded by the storm and for other needs that arise due to the storm impact.
- Obtain equipment and supplies needed to support responders.
- Work with ESF #11 and #12 to locate and obtain emergency supplies of fuel as needed.
- Work with ESF #3 and #12 to obtain generators and electrician services as needed.
- Staff the State Operations Center to coordinate response efforts among partner agencies and state vendors.
- GFC (Georgia Forestry Commission) will staff the State Logistics Desk, the Logistics Staging Areas, and PODs for food and water distribution as needed.
- DOAS will staff the Logistics Purchasing and Contracting Section.

**ESF #8 – Public Health and Medical Services** (Coordinator: Georgia Department of Public Health)

- Prior to the onset of the storm, alert critical agency staff to be prepared to work from home.
- Prior to onset of storm, coordinate with medical facilities, hospital coalitions, and EMS units on planned operations during the snow and ice event.
- Prior to onset of storm, request that hospitals prepare to implement emergency staffing plans.
- Prior to the onset of storm, request that hospitals, dialysis providers, and other medical providers create contingency plans and transportation plans for potentially homebound patients needing regular procedures.
- Coordinate with ESF #6 on potential special medical needs during sheltering

operations.

- Coordinate with area hospitals on requests for assistance related to the winter storm.
- Verify requests for critical medical transportation.
- Coordinate with area health care facilities, such as nursing homes and assisted living facilities, on requests for assistance related to the winter storm.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

**ESF #9 – Search and Rescue** (Coordinator: Georgia Emergency Management Agency)

- Provide search and rescue teams for people lost in the storm.
- Provide immediate life-saving assistance in the event of a building collapse or flooding due to snow melt.
- Provide body recovery in the event of a building collapse or flooding due to snow melt.

**ESF #10 – Hazardous Materials Response** (Coordinator: Georgia Department of Natural Resources, Environmental Protection Division)

- Pre-Season - Compile list of vendors capable and willing to respond in a snow and ice storm.
- Provide assistance during Hazardous Material releases that may occur due to snow and ice conditions, such as transportation accidents, leakage from frozen pipelines, or damage from building collapse or flooding during snow melt.
- Provide technical assistance to ensure compliance with federal and state regulations concerning debris management and facilitate necessary variances or exemptions.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

**ESF #11 – Agriculture and Natural Resources** (Coordinator: Georgia Department of Agriculture)

- Coordinate assistance to dairies, poultry farms, and livestock producers experiencing power, natural gas and propane outages.
- Verify that contaminated food due to power outages remains out of the marketplace and is properly disposed.
- Provide assistance with depopulation needs in the event of agricultural building collapse.
- Oversee dead animal disposal.
- Coordinate assistance for livestock control on public right of ways in the event of collapsed fencing.
- Collect information, track resource needs, and collect damage assessment data regarding agriculture and agribusiness.
- Coordinate with Department of Education to assist in obtaining food through the

- USDA for emergency feeding as needed.
- Coordinate with ESF #6 to provide animal sheltering support as needed for animals brought to shelters.
- Coordinate with ESF #12 and ESF #7 regarding mobile fueling needs for response operations.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

#### **ESF #12 – Energy** (Coordinator: Georgia Environmental Finance Authority)

- Communicate with Georgia Power Company, Georgia EMC (Electric Membership Corporation), and Electric Cities of Georgia regarding the extent and anticipated duration of any power outages and communicate to ESF Partners in the SOC.
- Communicate with industry partners regarding the potential for disruption to fuel deliveries and natural gas and communicate to ESF Partners in the SOC.
- Receive and communicate request for priority restoration from the SOC to utility companies
- Work with ESF #7 to locate and obtain emergency supplies of power and fuel as needed.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

#### **ESF #13 – Public Safety and Security** (Coordinator: Georgia Department of Public Safety)

- Pre-season - Contact trucking associations to facilitate messaging to truckers concerning requirements for tire chains or snow tires and bans on non-local truck traffic inside I-285.
- Pre-season - Identify truck parking areas and establish and maintain MOUs for the use of these areas during icy conditions.
- Coordinate with GDOT to have trucker instructions on changeable message boards. Provide information at Weigh Stations on activation of law and available truck parking for truckers unable to meet requirements.
- Activate and staff the Georgia State Patrol Troop C EOC to provide operational command and control of early response initiatives.
- Coordinate with Georgia Department of Transportation and Georgia Forest Commission Brine Crews (if activated) to assist with security of road treatment crews and equipment; road blockage or detour operations; and other strategic operations related to the removal of snow and ice from state roadways.
- Staff and coordinate Traffic Strike Teams to assist stranded motorist and to remove disabled and abandoned vehicles from traffic lanes.
- Provide spot reports on road conditions to GDOT and the SOC Intel Unit.
- Escort emergency responders as needed on state roadways.
- Assist local law enforcement with security, road blockage, detours, or other response operations as needed.
- Provide security and support for other response operations as needed among state partners and in local jurisdictions (sheltering, wellness checks, etc.), prioritized according to life safety needs as available assets allow.
- After driving conditions become safe, assist in missions to aid citizens in locating and recovering their abandoned or disabled vehicles.



- Staff the State Operations Center to coordinate response efforts among partner agencies.

#### **ESF #14 – Long-Term Recovery** (Coordinator: Georgia Emergency Management Agency)

- Assist in drafting a pre-event Presidential Emergency Declaration and requests for Direct Federal Assistance.
- Assist in drafting a Presidential Disaster Declaration.
- Collect data to support Presidential Disaster Declaration Request.
- Conduct Preliminary Damage Assessments in coordination with FEMA.
- Staff the State Operations Center to coordinate response efforts among partner agencies.

#### **ESF #15 – External Affairs** (Coordinator: Georgia Emergency Management Agency)

- Activate the Joint Information System and the Joint Information Center.
- Prepare messaging concerning ongoing preparedness, response and recovery actions. Prepare messaging urging public awareness and preparedness.
- Distribute messaging across all available platforms, including traditional media and social media and on the GEMA/HS Emergency Resource Website and Ready Georgia App.
- Disseminate alerts through the Ready Georgia App as directed by Incident Commander.
- Coordinate with ESF # 6 to update shelter information on the Emergency Resource Website and through the Ready Georgia App. Verify and update Warming Centers and Safe Havens on the website and Ready Georgia App.
- Monitor ongoing media and social media developments for purpose of correcting erroneous public perceptions.
- Coordinate with GDOT on use of electronic billboards and GDOT changeable message signs.
- Respond to media requests and provide updates as needed.
- Conduct media briefings in the SOC and facilitate media photo/video opportunities in the field.
- Respond to and appropriately route constituent and elected official inquiries.

#### **Georgia Department of Defense (DOD)**

- Pre-season - Provide information on current generator inventory and the availability of generator support capability.
- Prior to the onset of the winter storm, prepare 4-wheel-drive vehicles throughout the state so that they are available and prepared for response.
- Participate in Traffic Strike Teams to clear traffic lanes and assist stranded motorists with wellness checks, water, and MREs. (Water and blankets provided by GEMA).
- Provide personnel to Unified Command at Georgia State Patrol Troop C EOC.
- Provide critical transportation support as needed. Assist in the delivery of life-saving and life sustaining commodities (food, water, and heating fuel) both in bulk to staging areas and shelters and door to door, as needed.
- Support Points of Distribution (PODs) as needed.

- Escort emergency responders on state roadways if needed in coordination with GDPS and GDOT.
- Provide transportation for people transferring from warming centers to shelters as directed by ESF #6.
- Provide security and support for other response operations as needed.
- Provide Search and Rescue Teams in support of ESF #9 as needed
- Assist in debris clearance as needed.
- Assist with aerial reconnaissance for damage assessment and aerial transportation for personnel movement, medical evacuation, etc., in coordination with AirOps.
- Assist in abandoned vehicle recovery missions.
- Staff the SOC to coordinate response efforts among partner agencies.

## 4.0 Plan Development and Maintenance

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This Plan will be reviewed every two years and updated as required. In addition the plan shall be evaluated for recommended revisions and corrective measures as an integral part of the Agency Exercise or Event After Action Reports / Improvement Plans, as well as internal reviews that will follow the issuance of any Governor Executive Order or passage of legislation impacting the Agency.

## 5.0 References

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1. Federal
  - a) Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining State, Territorial, Tribal, and Local Government Emergency Plans, March 2009.
  - b) Homeland Security Exercise and Evaluation Program (HSEEP), February 2007.
  - c) National Incident Management System (NIMS), December 2008.
  - d) National Response Framework, Federal Emergency Management Agency, January 2008.
2. State
  - a) Executive Order 01-24-11-01
  - b) Georgia Emergency Operations Plan
  - c) State of Georgia Threat Hazard Identification and Risk Assessment (THIRA)
  - d) State Enhanced Hazard Mitigation Plan.
  - e) Georgia Department of Transportation Winter Weather Procedures
  - f) Georgia Department of Public Safety Winter Storm Plan
3. National Weather Service Products
  - a) <http://www.weather.gov/dmx/preparewinterproducts>
  - b) [http://www.srh.noaa.gov/ama/?n=winter\\_center](http://www.srh.noaa.gov/ama/?n=winter_center)



## Appendix

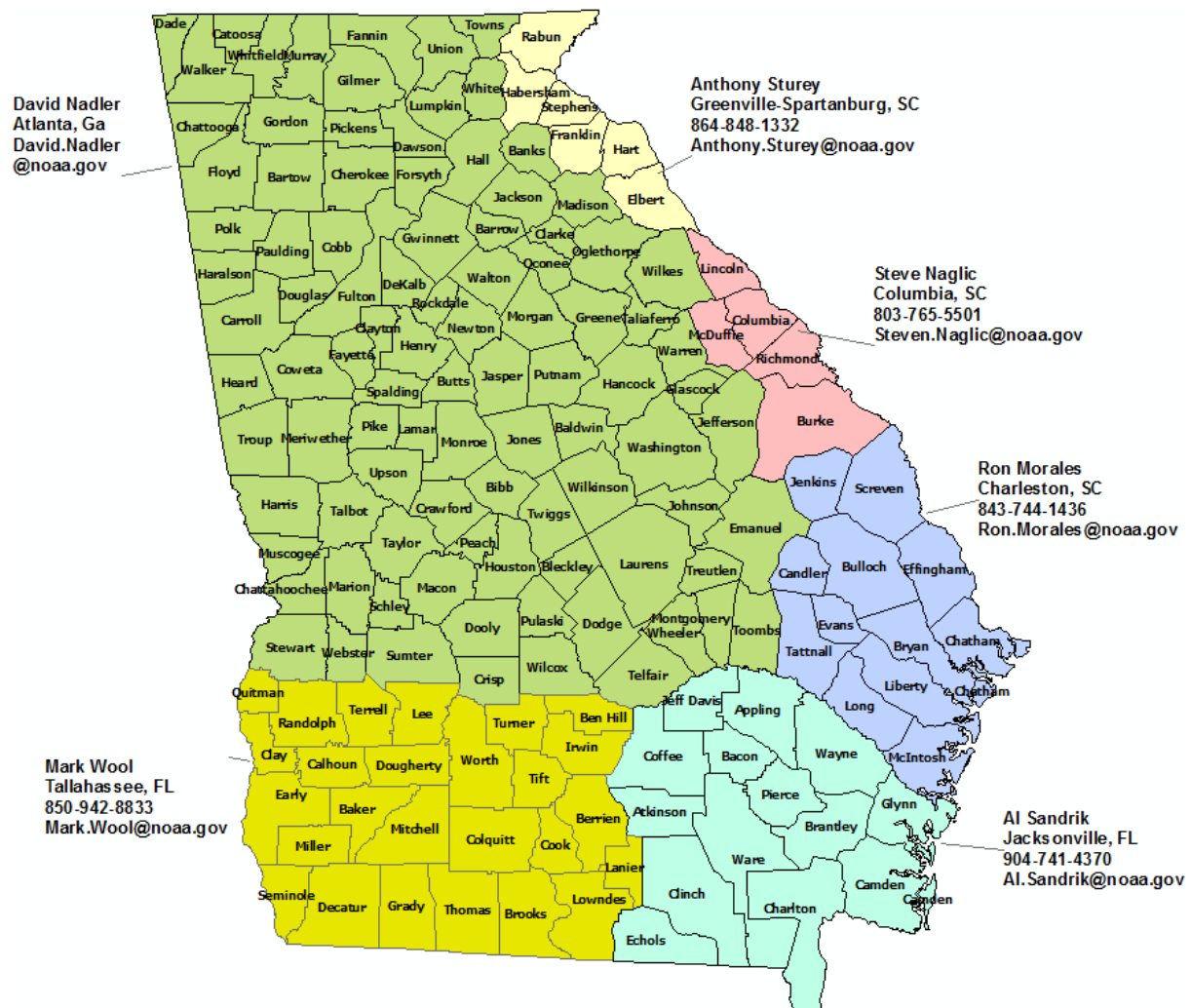
### Attachment 1 – Winter Weather Forecast Products from NWS

**Winter Weather Forecast Products from the National Weather Service**

	NWS Product	Percent Probability	Time before Event	Conditions Expected
	Winter Storm Outlook	30% or greater chance	3 -7 days	A hazardous winter weather event that may require a watch or warning in a later forecast. Issued via the Hazardous Weather Outlook or Special Weather Statement.
<b>WATCHES</b> – Lower Confidence Level of Significant Hazards due to extended timeframe *	Wind Chill Watch	50% or greater chance	36 – 48 hours	Wind Chill values of -10°F or less.
	Winter Storm Watch	50% or greater chance	36 – 48 hours	Conditions favorable for a significant winter storm including one or more - <ul style="list-style-type: none"> <li>• Heavy Snow <ul style="list-style-type: none"> <li>○ 2" or more in 12 hours</li> </ul> </li> <li>• Heavy Sleet <ul style="list-style-type: none"> <li>○ ½" or more</li> </ul> </li> <li>• Heavy Freezing Rain <ul style="list-style-type: none"> <li>○ ¼"</li> </ul> </li> <li>• Any amount up to 2" which causes significant impacts</li> </ul>
	Blizzard Watch	50% or greater chance	36 – 48 hours	Blizzard conditions with sustained winds of 35 mph or greater and considerable falling or blowing snow that reduces visibility to less than ¼ mile for 3 hours or more.
<b>ADVISORY</b> – High confidence but less severe	Winter Weather Advisory	80% or greater chance	Up to 36 hours	A winter precipitation event (snow, freezing rain/drizzle, sleet or blowing snow) which causes inconveniences but does not meet warning criteria.
	Wind Chill Advisory	80% or greater chance	Up to 36 hours	Wind Chill values of 5°F or less but does not meet warning criteria.
<b>WARNING</b> – High Confidence Level of Significant Hazards	Wind Chill Warning	80% or greater chance	Up to 36 hours	Wind Chill values of -10°F or less.
	Winter Storm Warning	80% or greater chance	Up to 36 hours	Conditions favorable for a significant winter storm including one or more - <ul style="list-style-type: none"> <li>• Heavy Snow <ul style="list-style-type: none"> <li>○ 2" or more in 12 hours</li> </ul> </li> <li>• Heavy Sleet <ul style="list-style-type: none"> <li>○ ½" or more</li> </ul> </li> <li>• Heavy Freezing Rain <ul style="list-style-type: none"> <li>○ ¼"</li> </ul> </li> <li>• Any amount up to 2" which causes significant impacts</li> </ul>
	Ice Storm Warning	80% or greater chance	Up to 36 hours	¼" or more of freezing rain
	Blizzard Warning	80% or greater chance	Up to 36 hours	Blizzard conditions with sustained winds of 35 mph or greater and considerable falling or blowing snow that reduces visibility to less than ¼ mile for 3 hours or more.

\*Note: Watches can be high confidence in some situations and warrant extensive preparedness actions. As with all products, the watch text, forecast discussions, and NWS Briefings should be consulted. In addition, the NWS Peachtree City Forecast Office has an Emergency Manager Hotline available at 1-888-529-5300.

## Attachment 2- National Weather Service Coverage Areas



### Attachment 3: Ice Accumulation Index

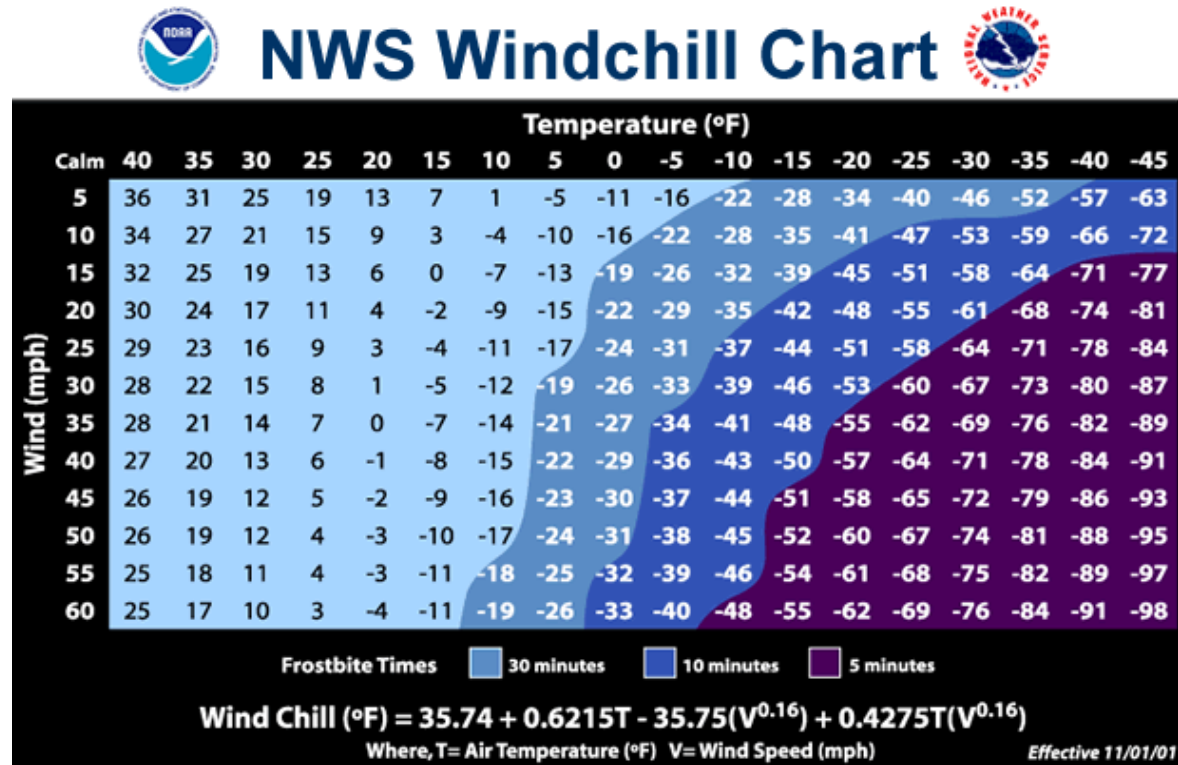
**The Sperry-Piltz Ice Accumulation Index, or “SPIA Index” – Copyright, February, 2009**

ICE DAMAGE INDEX	* AVERAGE NWS ICE AMOUNT (in inches) <small>*Revised-October, 2011</small>	WIND (mph)	DAMAGE AND IMPACT DESCRIPTIONS
<b>0</b>	< 0.25	< 15	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
<b>1</b>	0.10 – 0.25	15 - 25	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
	0.25 – 0.50	> 15	
<b>2</b>	0.10 – 0.25	25 - 35	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
	0.25 – 0.50	15 - 25	
	0.50 – 0.75	< 15	
<b>3</b>	0.10 – 0.25	> = 35	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
	0.25 – 0.50	25 - 35	
	0.50 – 0.75	15 - 25	
	0.75 – 1.00	< 15	
<b>4</b>	0.25 – 0.50	> = 35	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
	0.50 – 0.75	25 - 35	
	0.75 – 1.00	15 - 25	
	1.00 – 1.50	< 15	
<b>5</b>	0.50 – 0.75	> = 35	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.
	0.75 – 1.00	> = 25	
	1.00 – 1.50	> = 15	
	> 1.50	Any	

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

**Sperry-Piltz Ice Accumulation Index:** Although the exact effects have not been verified in the Southeast, this chart illustrates how the combined hazards of ice and wind increase the damage and impact to overhead utility systems and transportation. The Peachtree City NWS Forecast Office will be testing the Index in 2015 for applicability to Georgia. Additional information can be found at the SPIA Index website: <http://www.spia-index.com/>

## Attachment 4: Wind Chill Index



Frostbite danger from wind chill increases as temperatures drop and wind speeds increase. Additional information can be found in the NWS Wind Chill brochure at:

<http://www.nws.noaa.gov/om/winter/resources/wind-chill-brochure.pdf>

## Attachment 5: Regional Snowfall Index

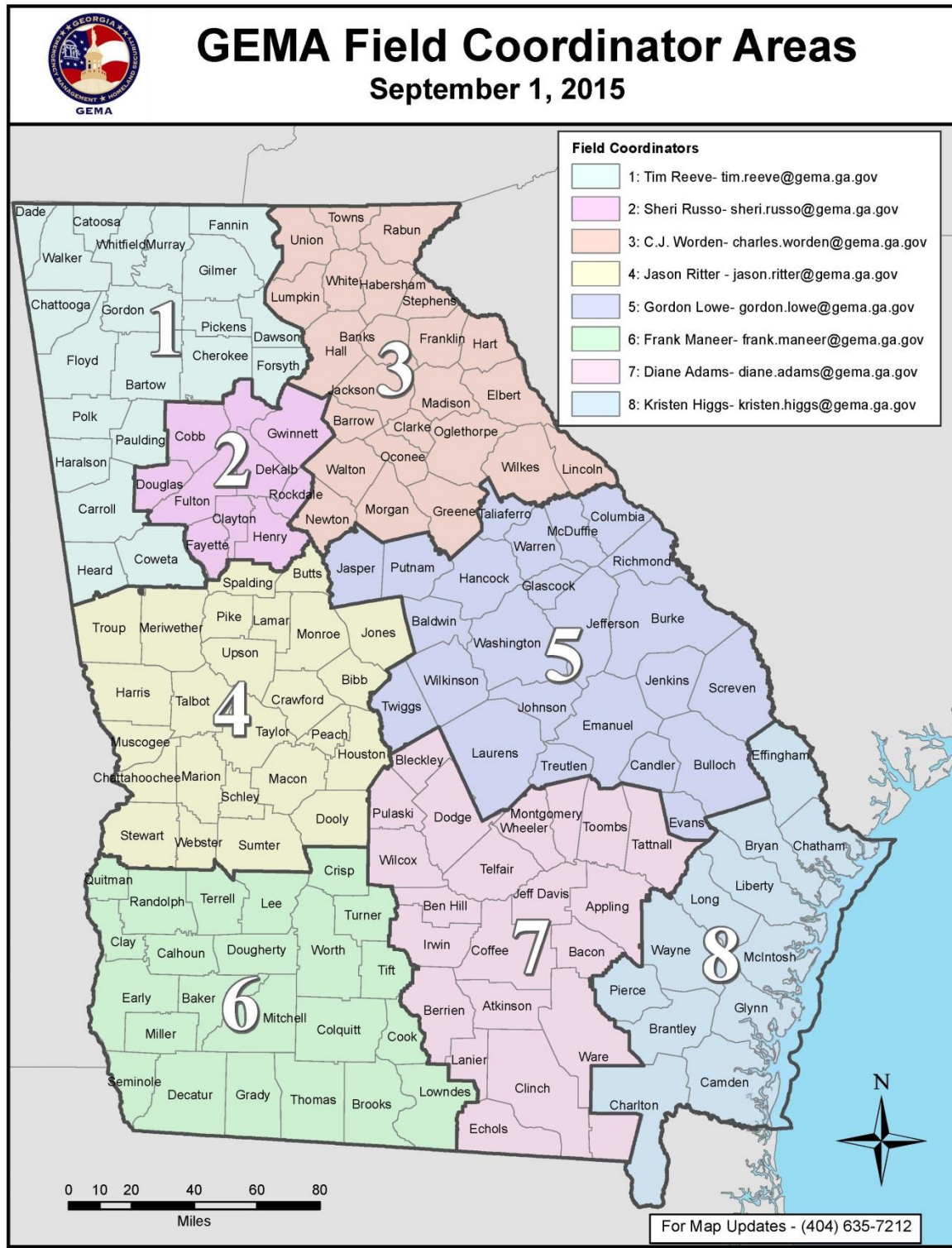
### Regional Snowfall Index (RSI)

Category	RSI Value	Description
1	1–3	Notable
2	3–6	Significant
3	6–10	Major
4	10–18	Crippling
5	18.0+	Extreme

The NOAA National Climatic Data Center ranks snowstorm impacts on a scale from 1 to 5 based on how widespread the snowfall is the depth of snow and the population of the impacted area. For more information see: <http://www.ncdc.noaa.gov/snow-and-ice/rsi/overview>



## Attachment 6- GEMA/HS Field Coordinator Areas



## Attachment 7 - Acronyms

ARC – American Red Cross – This volunteer organization focuses on meeting people's immediate emergency disaster-caused needs. The Red Cross provides shelter, food, and health and mental health services to address basic human needs when a disaster threatens or strikes.

ARES – Amateur Radio Emergency Services - This volunteer organization is composed of licensed amateur radio operators who have voluntarily registered their qualifications and equipment with their local ARES leadership for communications duty in the public service when disaster strikes.

ASOC – Air Support Operations Center - The ASOC is single controlling / coordinating facility providing forward aviation operations capabilities including, but not limited to, mission assignment and tracking, air-space flight deconfliction, air asset prioritization, and communications support.

DFCS – Georgia Department of Family and Children Services – Division of Family and Children Services – is a Georgia state agency that assists low-income families through income supplements and by managing the Food Stamp program and accepting Medicaid applications. Among other tasks, the agency also finds adoptive and foster homes for neglected children, investigates child abuse, and subsidizes childcare costs.

DHS – Georgia Department of Human Services – DHS is Georgia's human service agency whose mission is to strengthen Georgia families by providing services through about 80 programs that ensure their health and welfare.

DOAS – Georgia Department of Administrative Services - DOAS is Georgia state government's business solutions provider. Among other services, DOAS negotiates statewide competitive contracts and provides purchasing and fleet management services.

DPS – Georgia Department of Public Safety – DPS includes the Georgia State Patrol, Motor Carrier Compliance Division, and the Capitol Police.

EMC – Electric Membership Corporation - Georgia EMC is the statewide trade association serving Georgia's 42 Electric Membership Cooperatives. The co-ops are private, independent electric utilities owned by the consumers receiving the electricity.

EMAC - Emergency Management Assistance Compact – EMAC is a congressionally ratified organization that provides form and structure to interstate mutual aid. Through EMAC, a disaster-affected State can request and receive assistance from other member States quickly and efficiently, with established policies addressing liability and reimbursement.

EMnet – Emergency Management Network - is a satellite-based emergency warning system (also utilizes Internet access). The system is designed to be secure, with a text-based platform that allows full multimedia support and assured delivery. The primary use of EMnet is to launch state EAS messages from the State Warning Point at GEMA/HS. The secondary use for EMnet is to send emergency messages to local jurisdictions from the State Warning Point. GEMA/HS currently funds the basic software licensing for current participating local jurisdictions; and funds the software licensing, computer hardware and satellite connectivity for the Georgia EAS state primary relay broadcast stations. Participation by local jurisdictions in this network is voluntary.

EMS – Emergency Medical Services – examples are Ambulance Services and Medical First Responders.

Emergency Operation Command (EOC) – Georgia’s emergency response leadership structure established by Governor’s Executive Order. The EOC is led by the GEMA/HS Director and composed of Agency Heads from state agencies critical to the emergency response.

EOC – Emergency Operations Center – An EOC is a central command and control facility used by counties, cities, government agencies and businesses to carry out emergency management coordination. The SOC is the State level EOC.

ESF - Emergency Support Function – is a method for structuring emergency response capabilities based on the National Response Framework. ESFs are comprised of various State Agency divisions along with certain private sector companies and volunteer groups (such as Georgia Power and the Red Cross) that have the training and resources required to needed to perform functions needed to save lives and protect property and the environment. More information on Georgia’s ESF organization can be found in the Georgia Emergency Operation Plan (GEOP).

FEMA - Federal Emergency Management Agency - FEMA is an agency of the United States Department of Homeland Security whose mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA assists with disasters that overwhelm the resources of local and state authorities.

GaARNG – Georgia Army National Guard - The GaARNG is comprised of “Citizen Soldiers” who perform military duty through various types of units including infantry, transportation, engineer, military police, aviation, and chemical/biological/radiological/nuclear and explosive response forces.

GaDNR – Georgia Department of Natural Resources – The mission of the Department of Natural Resources is to sustain, enhance, protect, and conserve Georgia’s natural, historic, and cultural resources for present and future generations, while recognizing the importance of promoting the development of commerce and industry that utilize sound environmental practices.

GaDOD – Georgia Department of Defense - The Georgia Department of Defense (GaDOD) consists of three distinct branches; the Georgia Army National Guard (GaARNG), Georgia Air National Guard (GANG), and the Georgia State Defense Force (GSDF).

GaDOD LNO - GaDOD Liaison Officer - Georgia Department of Defense agency personnel that coordinate National Guard military assistance to the State Operations Center.

GANG – Georgia Air National Guard

GaWARN – Georgia Water/Wastewater Agency Response Network – a mutual aid network organized to provide emergency assistance to member utilities during disasters.

GDA – Georgia Department of Agriculture - The Georgia Department of Agriculture works to protect and promote agriculture and consumer interests and ensure an abundance of safe food and fiber.

GDOT – Georgia Department of Transportation - Committed to moving people and goods through the state in a timely and efficient manner, the Georgia Department of Transportation works to maintain safety on roadways and relieve congestion on the interstates.

GEMA/HS – Georgia Emergency Management Agency - The Georgia Emergency Management Agency works with other government agencies to teach



preparedness, lessens the effects of a hazard, and strengthens response and recovery efforts. GEMA also supports homeland security initiatives that protect state residents' lives and properties and reduce, or entirely prevent, the negative impacts of terrorism.

GEOP – Georgia Emergency Operations Plan - GEOP is a comprehensive state emergency operations plan developed to ensure mitigation and preparedness, appropriate response and timely recovery from natural and man-made hazards which may affect residents of Georgia.

GFC – Georgia Forestry Commission - Protecting and conserving forests, the Georgia Forestry Commission prevents and suppresses wildfires, provides rural fire department assistance, assists landowners and communities with forest management, and grows and sells quality tree seedlings for planting.

GDPH – Georgia Department of Public Health - The Georgia Department of Public Health (DPH) is the lead agency in preventing disease, injury and disability; promoting health and well-being; and preparing for and responding to disasters from a health perspective.

GRWA – Georgia Rural Water Association – a non-profit organization representing rural water and wastewater systems throughout the State of Georgia and providing training and technical assistance to member utilities.

GSDF – Georgia State Defense Force – is the GaDOD volunteer organization. The GSDF performs missions such as evacuation and control during natural disasters, perimeter safety and medical assistance during major events.

GSP – Georgia State Patrol – a branch of the Georgia Department of Public Safety, GSP troopers investigate traffic crashes and enforce traffic and criminal laws on the state's roads, as well as supporting the efforts of all public safety agencies to reduce crime and responding to natural and manmade disasters.

HERO – Highway Emergency Response Operator - Georgia DOT employees who patrol the Atlanta-area freeways and respond quickly to incidents, assist stranded motorists, and clear the roads so that the normal traffic flow can be restored. Their vehicles are fully equipped with emergency materials such as fuel transfer tank, air compressors, 200- ft. air tube, and directional arrow board, flashing lights, portable generator and push-bumpers.

IPAWS - Integrated Public Alert and Warning System – Implemented and maintained by FEMA, IPAWS is a national alert and warning system that enables rapid dissemination of authenticated alert information over as many communications pathways as possible, including the Emergency Alert System, Wireless Emergency Alerts, and NOAA Weather Radios..

JFO-Joint Field Office - The JFO is a temporary Federal multiagency coordination center established locally by FEMA to coordinate operational Federal assistance activities. The JFO provides a central location for coordination of Federal, State, local, tribal, nongovernmental and private-sector organizations with primary responsibility for activities associated with incident support.

JIC – Joint Information Center – a location for public information officers from multiple agencies and organizations to gather and coordinate public messaging and work with the media.

JIS – Joint Information System – an online system that provides a structure for developing and delivering coordinated interagency messaging during a disaster.

LNO – National Guard Liaison Officer - Georgia Department of Defense agency personnel who coordinate military assistance to the State Operations Center.

MCCD – Motor Vehicle Compliance Division - a branch of the Georgia Department of Public Safety, the MCCD enforces laws and regulations that govern vehicle size

(height, width, and length) and vehicle weight. The MCCD also conducts safety inspections of commercial motor vehicles (primarily trucks and buses), inspects highway shipments of hazardous materials, and performs compliance reviews (safety performance audits) on motor carriers, among other responsibilities. MCCD Officers are trained and certified in accordance with standards of the Georgia Peace Officer Standards and Training (POST) Council, and have full arrest powers in the performance of their duties.

MCV – Mobile Communications Vehicle - Mobile Communication Vehicles provide a variety of critical mobile communication capabilities for disaster events in support of the GEMA SOC and can serve, if necessary, as GEMA's "forward" operations center in or near a disaster area.

MOU - Memorandum of Understanding – an agreement between two or more parties expressing an intended common course of action.

NaviGator – is Georgia's integrated Intelligent Transportation System operated by the Georgia Department of Transportation and designated to minimize congestion of highways and improve traveler safety within the metro Atlanta area.

NWS – National Weather Service - a component of the National Oceanic and Atmospheric Administration (NOAA). NOAA is an Operating Unit of the U.S. Department of Commerce. The mission of the NWS is to Provide weather, water, and climate data, forecasts and warnings for the protection of life and property and enhancement of the national economy.

OPCONs – Operating Conditions - this overarching operational timeline provides time-delineated and forecast-based trigger points for protective actions and response.

PAO – Public Affairs Office - The GEMA Public Affairs Office is the principal point of contact for GEMA / Homeland Security with the news media. In addition the Public Affairs Office provides accurate and timely information to the citizens of Georgia during

PIO – Public Information Offices - A member of the Command Staff responsible for interfacing with the public and media and/or with other agencies with incident- related information requirements.

PODs – Points of Distribution - PODs are centralized locations where the public picks up life sustaining commodities, such as water and shelf stable food following a disaster or emergency.

SOC – State Operations Center – The SOC is a multi-agency coordination center used by federal, state, local, volunteer and private agencies to respond to disasters or emergencies that require a coordinated state response. It is located at GEMA/HS Headquarters.

VOADS – Volunteer Organizations Active in Disasters - Members of Georgia VOAD form a coalition of nonprofit organizations that respond to disasters as part of their overall mission. Georgia VOAD's role is to bring organizations together, enable them to understand each other and work together in a cohesive manner.

WAG – Weather Advisory Group – Established by the Governor, the Weather Advisory Group includes meteorologists and weather forecasters from Atlanta's four major network affiliates along with the National Weather Service. The group is consulted by GEMA/HS during weather events as decisions are considered and implemented.

WebEOC - is a web-based crisis information management system used by GEMA/HS and its emergency response partners to share information and track resource requests during emergencies, disasters, significant events, and daily operations.